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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/377,740	08/20/1999	KIMIKATSU SHOJI	32014-150502	8263

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EXAMINER

CRANE, SARA W

ART UNIT

PAPER NUMBER

2811

DATE MAILED: 02/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/377,740

Applicant(s)

SHOJI ET AL

Examiner

Sara W. Crane

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2001.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 9-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Objection to the Specification - 35 U.S.C. § 132

The amendment filed 13 December 2001 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Each of the amendments to the specification referring to a "common" mask or a "circuit mask."

The specification as originally filed does not appear to teach a "common" mask of any type, and in particular the specification does not teach a "common" mask for forming the gate array block and the plurality of functional blocks, as now recited in the claims. Each reference, in the specification as originally filed, of a mask used for formation of a non-customized layer, is in a discussion of the gate array block. There is no discussion of a mask used in common to form both the gate array block and the functional blocks.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6 and 9-14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as

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to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The gate array block and the plurality of functional block being formed by a "common mask" was not taught in the specification as originally filed.

The electrical connections "formed with a circuit mask," as recited in claims 13-14, also do not appear to be taught in the specification as originally filed.

Claims 1-6 and 9-12 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

No teaching is provided to explain to one of ordinary skill how to form a gate array block and a plurality of functional blocks with "a" common mask. Typically, one mask would be associated with each layer of a device structure, and any device structure would have many layers. So forming a gate array block and a plurality of functional blocks with only a single mask would probably not even be possible. At any rate, the specification provided no teachings as to how this process step would be accomplished.

With respect to the newly-added claims 13 and 14, there is no teaching in the specification as to how electrical connections would be "formed with a circuit mask."

Claim Rejections - 35 USC § 103

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 5-6, and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews et al. and Tavana et al. in view of Kean and Kawashima.

See reasons of record in the Office action of 13 September 2001. With respect to the newly-added limitation of a "common mask," it would have been obvious to form all structure in a single layer on the chip by a the same mask, because this is the way chips are usually made. For example, all source/drain regions are formed in a single step using a single mask, all gate electrodes are formed in a single step using a single mask, etc. The use of multiple masks to form structure in the same chip layer would be undesirable because it would increase the number of processing steps, which would increase the cost of the chip. With respect to the newly-added claims 13-14, wiring is typically formed by etching a metal layer by use of a mask, obvious in order to etch away undesired metal material leaving metal wires in the chip layer.

Claims 2-4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 1, 5-6 and 12-14 above, and further in view of Chan et al.

See reasons of record in the previous Office action.

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Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1, 5-6 and 12 above, and further in view of Dangelo.

See reasons of record in the previous Office action.

Conclusion

Applicant's arguments filed with respect to the pending claims have been fully considered but they are not persuasive. As noted above, the "common mask" as recited in the amended claims does not seem to be taught anywhere in the specification as originally filed, so this would be new matter. Also, each reference discussed in the previous Office action is relied upon for the specific evidence pointed out in the reference. As noted there, the Andrews reference teaches each element of, for example, device claim 6, and anticipation is the epitome of obviousness. Method steps of "placing," "designing," and so forth would have been necessary in order to end up with the structure taught. Each of the other references amplifies the Andrews teachings in the manner set forth in the Office action, to provide evidence of inherency as noted, or to provide definitions of claim terminology as noted. Such evidence is virtually always relevant to interpret the teachings of the base reference, hence admissible to establish a prima facie case of unpatentability.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Crane, whose telephone number is (703) 308-4894.

The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist, whose telephone number is (703) 308-0956.



Sara W. Crane
Primary Examiner
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